

ABSTRACT

The present invention provides a phosphor comprising at least one selected from the group consisting of Si and Ge, and Eu as an activator, and ratio R of not less than 40 %, wherein the ratio R is calculated by entering value of **[a]** being peak amplitude derived from Eu²⁺ and value of **[b]** being peak amplitude derived from Eu³⁺ in primary differential pattern of an X-ray absorption
10 nearedge structure spectrum into the following equation
(1).

$$R(\%) = (a / (a+b)) \times 100 \quad (1)$$